



# Safer Science

April/May 2010, Best Practices for Safety Issues in the Science Classroom and Laboratory

Ken Roy

## Failure of “Duty to Warn”

A student is injured while using a scalpel to dissect a flower in the science laboratory. The student’s parents sue the school district, alleging negligence and failure to provide appropriate safety instruction and supervision. The school district asserts that both the district and the teacher are immune from the suit because of governmental immunity for acts that involve the teacher’s exercise of discretion or judgment. Who will win in a court of law?

In this case, the student’s parents are the likely winners. This is because the teacher failed to take precautionary measures in dealing with the “sharp” danger presented by the scalpel. Had the teacher performed one or two precautionary measures—such as limiting scalpel use or using scissors instead—this accident might never have occurred. If the teacher had provided appropriate safety instruction or decided to closely supervise students during dissections, the accident might still have occurred, but the teacher would have made the discretionary choice to do “something.” In the scenario described here, however, the teacher does nothing to address the safety issues at hand, and thus will likely be held liable in a court of law.

## A helping hand for science teachers

The bottom line is that a particular governmental immunity statute may not necessarily shield science teachers from lawsuits when they have failed to take appropriate safety measures in the face of known hazards or dangers in the lab. The lesson then seems simple: Understand your *duty of care* to students and always provide appropriate safety instruction and supervision. Also be aware that, depending on the state, the teacher’s duty of care may fall outside the governmental immunity statute.

So does the fact that there are dangers inherent in the use of a particular piece of lab equipment—such as a scalpel—let the science teacher off the legal “hook”? Let’s first look at what might be considered “inherently dangerous.” The following labs present hazards with a high potential for harm to the student (and the teacher):

- ♦ Biology labs: animal allergens, animal attacks, sharps (e.g., scalpels, scissors, or razor blades), hazardous chemical preservatives, and microbiologicals
- ♦ Chemistry labs: hazardous chemicals, ventilation issues, heat or electrical power sources, labware, and skin burns



- ♦ Physics labs: electrical power sources, radioactive materials, and projectiles

In all states, science teachers have the duty of care to design safe lab activities; provide specific safety training for each activity; make alterations or adjustments to minimize the risk of harm to students; provide reasonable supervision in the lab during experiments; and, when safety incidents do occur, take appropriate action to prevent further harm or injury to students. That said, duty of care also depends on the state in which a teacher works in regard to the degree of legal entanglement.

## A relevant example

In the state of Maryland, for example, a science teacher may be the accountable and liable party should a lab accident

occur. The School Improvement in Maryland website notes that the science teacher has several core responsibilities in regard to the legal concept of negligence, including

- ♦ “exercising good judgment in planning, conducting, and supervising instruction;
- ♦ maintaining laboratory and safety equipment necessary to carry out instruction safely; and
- ♦ documenting that appropriate safety instruction has taken place” (School Improvement in Maryland 2010).

The Maryland website notes that a teacher may be found negligent if he or she commits a foolish or imprudent act, acts carelessly in doing a demonstration, fails to warn of safety hazards relative to an experiment or demonstration, or ignores a preexisting unsafe condition. All of these examples would be a breach of the teacher’s duty of care to act as a reasonable person to prevent harm to students under the circumstances.

The Maryland website further provides suggestions for science teachers on how to avoid negligence and reduce their potential for claims. This includes documenting their safety actions, such as having a parent or guardian sign a safety acknowledgement form, making copies of written safety assessments, writing plan book notations about safety training, and providing or posting written safety rules and expectations in the lab. The website also notes that a reasonable and prudent teacher

- ♦ “provides prior warning of any hazards associated with an activity,
- ♦ demonstrates the essential portions of the activity,
- ♦ provides active supervision,
- ♦ provides sufficient instruction to make the activity and its risks understandable,
- ♦ ensures that all necessary safety equipment is available and in good working order,
- ♦ has sufficient training and equipment available to handle an emergency, and
- ♦ ensures that the place of the activity is as safe as reasonably possible” (School Improvement in Maryland 2010).

### Final safety thought

As employees in a local school district, science teachers need to understand their state’s education code or statute that sets

their duty of care to students and any applicable immunity statute or case law supporting such immunity (Ryan 2001). Try to secure information from your supervisor or principal, union representative, or state department of education. The local and state teachers association or organization can also secure a written legal opinion about the scope of teacher liability and the applicability of any general immunity statutes from a lawyer.

Laws vary widely from one end of the spectrum to the other, depending on which state is involved. There is one common thread, however: The science teacher has several legal duties of care to students. Taking the precautions noted in this column is a step in the right direction to avoid legal issues and make the science classroom and laboratory as safe as possible for students *and* teachers.

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### On the web

School Improvement in Maryland *Science Safety Manual*: <http://mdk12.org/instruction/curriculum/science/safety/index.html>

### References

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